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## (54) CYLINDER INJECTION TYPE SPARK IGNITION ENGINE

## (57) Abstract:

**PURPOSE:** To prevent the abnormal increase of the temperature of an exhaust system without stopping operation of an engine when a misfire owing to open stick abnormality of a cylinder fuel injection valve.

**CONSTITUTION:** A cylinder injection type spark ignition engine comprises a cylinder fuel injection valve 2 connected to a common delivery pipe 8 and injecting fuel directly to the cylinders of an engine 1; a fuel pressure sensor 33 to detect a fuel pressure in a delivery pipe; a sensor 32 to detect the number of revolutions; and a control circuit (an ECU 30) for controlling an engine. The ECU detects the occurrence of a misfire owing to the fluctuation of the number of revolutions of an engine and from a fuel feed amount to a deliv-

ery pipe and a fuel injection amount, it is detected that open stick abnormality of a fuel injection amount occurs. During a misfire owing to an opening stick fuel cut and lean burn during deceleration are prohibited. By decreasing oxygen density in exhaust gas from a normal cylinder, unburnt fuel from a misfire cylinder is prevented from being burnt in the exhaust system.

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